

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 7,373,090 B2  
APPLICATION NO. : 10/814911  
DATED : May 13, 2008  
INVENTOR(S) : Kazemi-Nia

Page 1 of 2

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

**Title page.**

The title page showing an illustrative figure should be deleted and substitute therefor the attached Title Page.

**Drawings**

On Sheet 1 of 8, in Fig. 1 (Referral Numeral 110), line 1, delete "Tranceiver" and insert -- Transceiver --, therefor.

Signed and Sealed this

Sixteenth Day of September, 2008

A handwritten signature in black ink, reading "Jon W. Dudas". The signature is stylized, with a large loop for the "J" and a cursive "Dudas".

JON W. DUDAS  
*Director of the United States Patent and Trademark Office*

(12) **United States Patent**  
**Kazemi-Nia et al.**

(10) Patent No.: **US 7,373,090 B2**  
 (45) Date of Patent: **May 13, 2008**

(54) **MODULATOR DRIVER CIRCUIT WITH  
 SELECTABLE ON-CHIP TERMINATION**

(75) Inventors: Mehdi Kazemi-Nia, Los Angeles, CA  
 (US); Ivan L. Chen, La Puente, CA  
 (US)

(73) Assignee: Intel Corporation, Santa Clara, CA  
 (US)

(\*) Notice: Subject to any disclaimer, the term of this  
 patent is extended or adjusted under 35  
 U.S.C. 154(b) by 677 days.

(21) Appl. No.: 10/814,911

(22) Filed: Mar. 26, 2004

(65) **Prior Publication Data**  
 US 2005/0213993 A1 Sep. 29, 2005

(51) Int. Cl.  
**H04B 10/04** (2006.01)

(52) U.S. Cl. .... 398/198; 359/245; 359/248

(58) Field of Classification Search .... 398/198;  
 327/108; 359/245, 248, 237, 254, 276, 278,  
 359/279; 385/2

See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

4,109,214 A \* 8/1978 Main ..... 330/254

5,224,111 A \* 6/1993 Stilwell et al. .... 398/5  
 5,546,218 A \* 8/1996 Komatsubara et al. .... 359/237  
 5,550,513 A \* 8/1996 Wong ..... 330/286  
 5,585,763 A \* 12/1996 Navabi et al. .... 330/255  
 5,706,117 A \* 1/1998 Imai et al. .... 398/197  
 5,900,745 A \* 5/1999 Takahashi ..... 326/64  
 5,930,022 A 7/1999 Okuma  
 6,256,127 B1 \* 7/2001 Taylor ..... 398/9  
 6,606,177 B1 \* 8/2003 Chujo et al. .... 398/183  
 6,707,589 B2 \* 3/2004 Bostak et al. .... 359/245  
 6,836,185 B1 \* 12/2004 Pobanz ..... 330/260  
 7,099,596 B2 \* 8/2006 Watanabe et al. .... 398/183  
 7,164,692 B2 \* 1/2007 Cox et al. .... 370/466  
 2003/0006842 A1 \* 1/2003 Turudic et al. .... 330/253  
 2003/0011865 A1 \* 1/2003 Kimura ..... 359/237  
 2003/0180054 A1 \* 9/2003 Watanabe et al. .... 398/182  
 2003/0234969 A1 \* 12/2003 Bostak et al. .... 359/240  
 2004/0075474 A1 \* 4/2004 Umeda et al. .... 327/112  
 2004/0189388 A1 \* 9/2004 Nguyen et al. .... 330/254  
 2005/0099748 A1 \* 5/2005 Aemireddy ..... 361/82  
 2005/0103769 A1 \* 5/2005 Marquis ..... 219/204  
 2006/0109723 A1 \* 5/2006 Martin ..... 365/198

\* cited by examiner

Primary Examiner—Kenneth Vanderpuye

Assistant Examiner—Thi Q. Le

(74) Attorney, Agent, or Firm—Kacvinsky LLC

(57) **ABSTRACT**

A method and apparatus to accommodate differing output  
 loads without sacrificing impedance matching in an optical  
 modulator driver.

14 Claims, 8 Drawing Sheets

